

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P211515

Luminaire Tested: **LE\_4B20D010 EC4B10209027 4LBS1GPH**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211515  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35319)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LE\_4B20D010 EC4B10209027 4LBS1GPH  
Description: PORTFOLIO 4 INCH CYLINDER  
SHALLOW DISTRIBUTION WITH GRAPHITE HAZE TRIM  
WATTAGE D010TR-21.86W DE010-20.46W D5LT-21.24W DMX-20.89W DL2-22.5W  
DL3-21.8 6W DLE-22.46W  
Light Source: HIGH LUMEN LED  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1738.2 lumens  
Efficiency: N/A  
Efficacy: 83.6 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.16 / 1.26  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

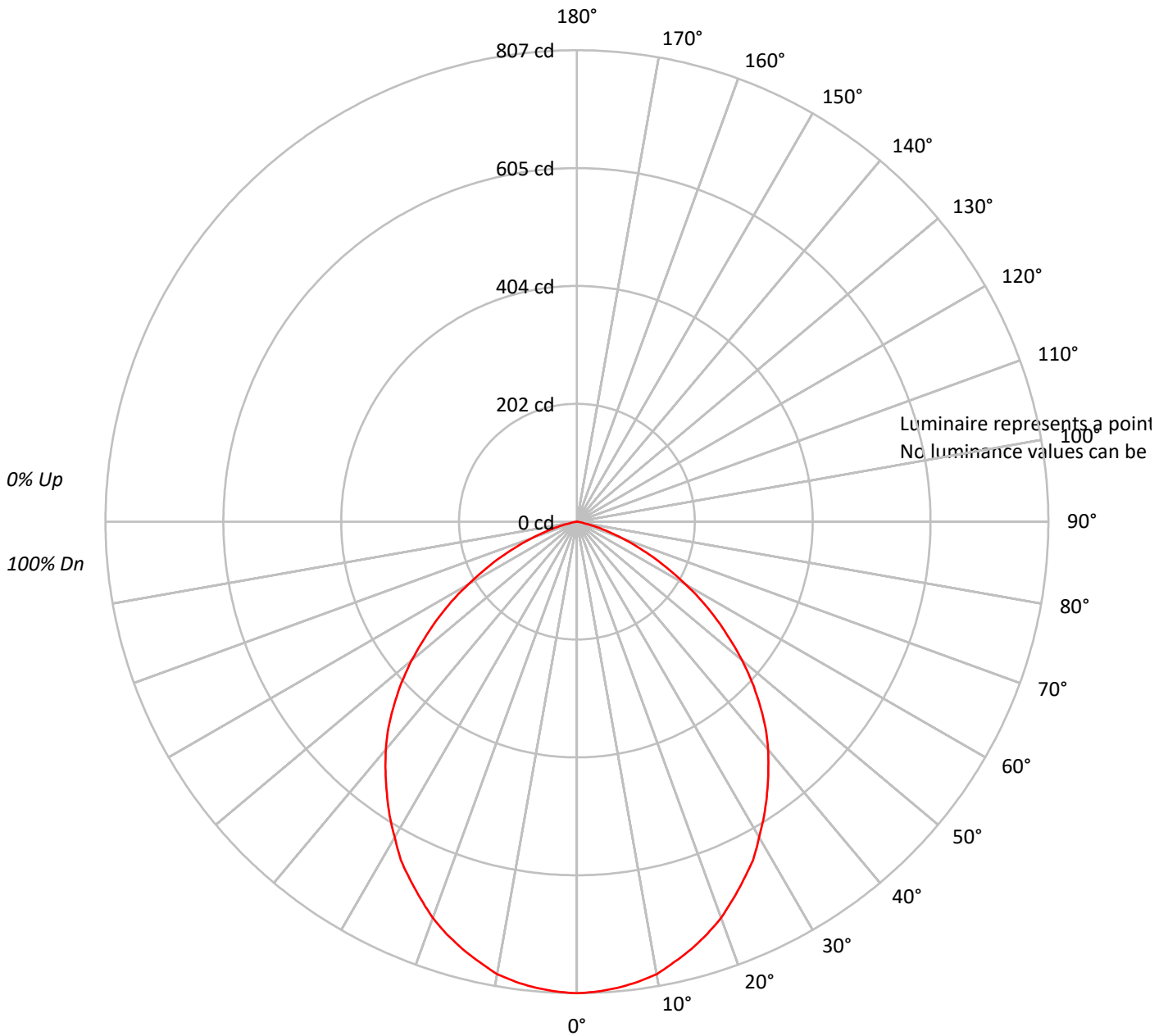
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20			
RC	80				70				50				30				10		0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	91	90	88		
2	102	95	89	84	100	93	88	83	90	85	82	87	83	80	84	81	78	76		
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66		
4	87	76	68	62	85	75	67	62	72	66	61	70	65	60	68	63	59	57		
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50		
6	74	62	54	48	73	61	53	48	59	52	47	58	52	47	56	51	47	45		
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40		
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36		
9	60	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	32		
10	57	44	37	32	56	44	36	32	43	36	31	42	36	31	41	35	31	30		

**AVERAGE LUMINANCE (cd/sqm):**





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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.0	4.4
10°-20°	213.4	12.3
20°-30°	311.2	17.9
30°-40°	354.9	20.4
40°-50°	340.4	19.6
50°-60°	260.7	15.0
60°-70°	143.1	8.2
70°-80°	38.1	2.2
80°-90°	0.6	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	600.5	34.5
0°-40°	955.4	55.0
0°-60°	1556.5	89.5
0°-90°	1738.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1738.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	807	
5°	801	76
15°	757	213
25°	676	311
35°	567	355
45°	442	340
55°	292	261
65°	144	143
75°	33	38
85°	0	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	807.2
2.5°	805.2
5°	801.0
7.5°	794.8
10°	786.5
12.5°	771.9
15°	757.2
17.5°	740.5
20°	721.8
22.5°	698.8
25°	675.8
27.5°	653.0
30°	623.7
32.5°	596.6
35°	567.4
37.5°	538.2
40°	509.0
42.5°	477.7
45°	442.2
47.5°	406.8
50°	369.2
52.5°	329.6
55°	292.1
57.5°	254.5
60°	214.8
62.5°	177.4
65°	144.0
67.5°	110.5
70°	81.3
72.5°	54.3
75°	33.4
77.5°	14.6
80°	4.2
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)